

SDCS-ER-76-116



**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT**  
**Novaya Zemlya, SSR, 29 September 1976**

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**Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314**

**November 1977**

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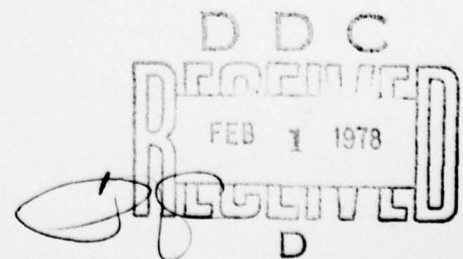
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20 ABSTRACT (Continue on reverse side if necessary and identify by block number)			

SDCS Event Report No. 116

Novaya Zemlya SSR, 29 September 1976

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	03:04:37.0	02:59:57.0	73.4N	055.1E	6.0	N/A
Hagfors	03:04:34.9	03:00:56.0	71N	042E	6.5	5.3

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

02:59:59.6	73.1N	055.0E	5.6	N/A
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All SDCS stations were operational during this time period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA, and NORSAR. All SDCS data were retrieved from the digital field tapes and horizontal channels were rotated. Information for LASA is from the LASA Data Center Teleseismic Report. NORSAR data is from their bulletin.

Long-period signals associated with this event were detected at only one SDCS station, RK-ON. Waveform data for both LASA and NORSAR was unobtainable.

Scaling factors on plots are millimicrons at 1 Hz for SP and 0.04 Hz for LP (not corrected for instrument response).

ACCESSION for	
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DDC	Buff Section <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
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## STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION	
				SHORT-PERIOD	LONG-PERIOD
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	KS36000	KS36000
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
OB2NV	Nevada Test Site	37 13 31.0 N 116 03 28.0 W		18300	N/A
NT-NV	Nevada Test Site	31 16 33.0 N 116 25 06.0 W		18300	N/A
NT2NV	Nevada Test Site	37 15 16.0 N 116 18 13.0 W		18300	N/A
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H

-- HYPO --

29SEP INPUT FOR EVENT 29 SEP 76  
03:00:00.0 73.001N 55.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST	REST	REST
NT-NV	03 11 09.4	-0.1	-0.1	69.6	352.7
NAO	03 04 37.0	-0.0	0.0	20.4	256.9
NT2NV	03 11 09.7	0.1	0.1	69.6	352.6
LAO	03 10 04.6	0.6	0.7	59.6	345.2
HN-ME	03 09 28.3	0.1	0.0	54.6	314.5
RK-ON	03 09 25.7	-0.5	-0.4	54.3	336.1
OB2NV	03 11 09.3	-0.3	-0.3	69.6	352.4

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
03:00:03.8	73.032N	54.882E	30. CALC	0.4	5	7
02:59:59.6	73.082N	54.984E	0. REST	0.4	2	7

CALC				REST			
5	.	0		5	.	0	
1	.	0		1	.	0	
0	0.	0	0	0	0.	0	0
.	.	.	.	.	.	.	.
0	1.	0	0	0	1.	0	0
0	.	0		0	.	0	
0	.	0		0	.	0	

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.13  
MAJOR 138.0KM. MINOR 25.9KM. AZ= 138 AREA= 11223 SQ.KM. REST

# DATA SUMMARY

29SEP INPUT FOR EVENT 29 SEP 76  
03:00:00.0 73.001N 55.000E OKM.

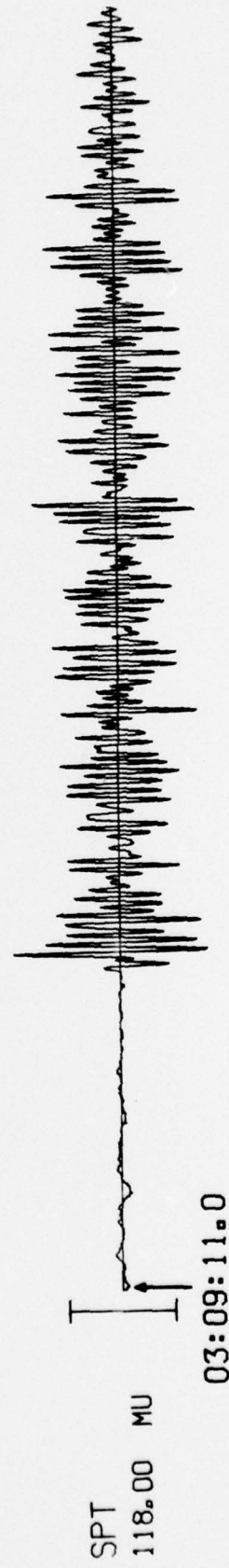
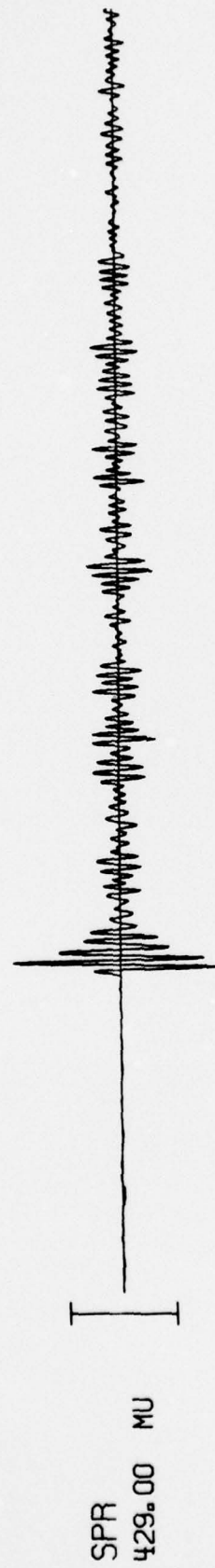
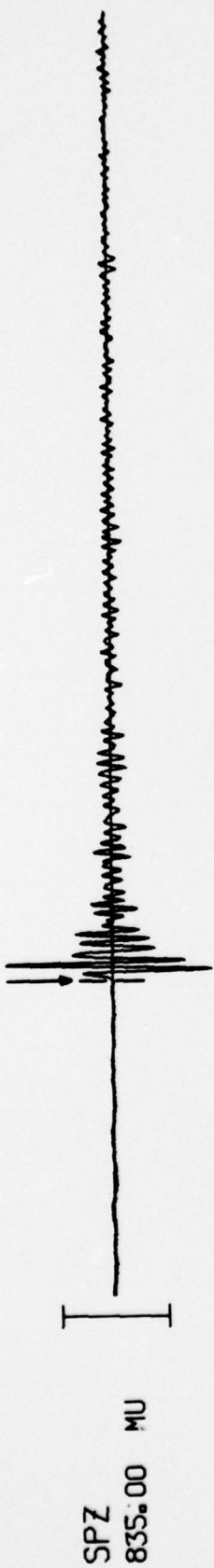
STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
NAO	EP	03 04 37.0		AB	0.7	1791.	5.99			20.4
RK-ON	EP	03 09 25.7		SPZ	0.5	1033.	6.51			54.3
RK-ON	LR	03 38 16.0		LPZ	16.0	169.		5.11		54.3
HN-ME	EP	03 09 28.3		SPZ	0.8	173.	5.74			54.6
LAO	EP	03 10 04.6		SAB	0.6	85.	5.43			59.6
NT-NV	EP	03 11 09.4		SPZ	0.6	48.	5.32			69.6
NT2NV	EP	03 11 09.7		SPZ	0.6	63.	5.44			69.6
OB2NV	EP	03 11 09.3		SPZ	0.8	32.	5.14			69.6

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
03:00:03.8	73.032N	54.882E	30. CALC	5.46	0.36	6
02:59:59.6	73.082N	54.984E	C. REST	5.65	0.47	7

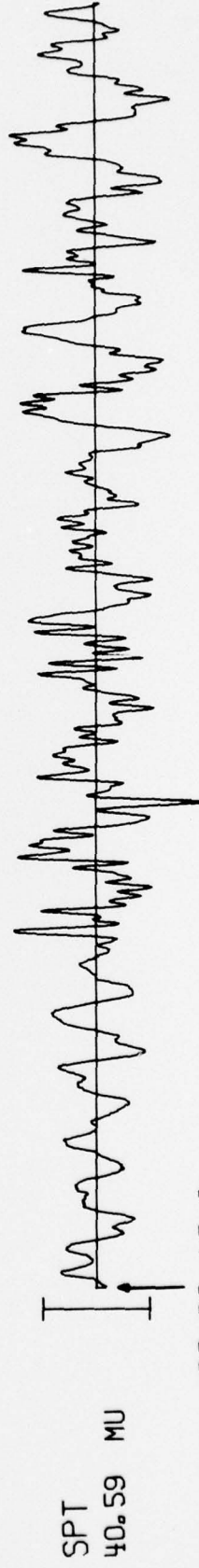
RK-ON NOT USED IN CALC RUN SP AVG. MAG.

Average long-period magnitude ( $M_S$ ) is based on Rayleigh wave observations in the period range of 17 to 23 seconds per cycle.

RK-ON 29 SEP 76  
03:09:25.7



HN-ME 29 SEP 76  
03:09:28.3



03:09:13.0

10 SEC.

NT-NV 29 SEP 76  
03:11:09.4

SPZ  
59.00 MU



SPR  
57.00 MU



SPT  
71.00 MU



03:10:54.0

[ 10 SEC. ]

NT2NV 29 SEP 76

03:11:09.7

SPZ  
63.00 MU



SPR  
58.00 MU



SPT  
66.00 MU



03:10:55.0

10 SEC.

0B2NV 29 SEP 76  
03:11:09.3

SPZ  
25.20 MU



SPR  
14.87 MU



SPT  
10.26 MU



03:10:54.0

10 SEC.

RK-ON 29 SEP 76

03:38:16

LPZ  
1672.00 MU



LPR  
796.00 MU



LPT  
1015.00 MU



03:28:00.0

2 MIN.